

ABSTRACT

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Novel epoxysuccinamide derivatives represented by the general formula (1) or physiologically acceptable salts thereof, which are useful particularly as remedies for bone diseases and arthritis, wherein R^1 and R^3 are each hydrogen, alkyl, alkenyl, alkynyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; R^2 is alkyl, alkenyl, alkynyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; X is -O- or -NR⁴- (wherein R^4 is hydrogen, alkyl, aryl, aralkyl, a heterocyclic group, or a heterocyclic-alkyl group; Y^1 is OR⁵, SR⁶, or NR⁷R⁸ (wherein each of R^5 , R^6 and R^7 is hydrogen, alkyl, aryl, aralkyl, acyl, a heterocyclic group, or a heterocyclic-alkyl group, and R^8 is the same as defined for R^4); and Y^2 is hydrogen or alkyl, or alternatively Y^1 and Y^2 can be combined to form =O, =S, =N-R⁹, or =N-OR¹⁰ (wherein each of R^9 and R^{10} is the same as defined for R^4), provided that each of the alkyl, aryl and heterocyclic groups defined for R^5 to R^{10} can have one or more specific substituents and that each of the group defined for R^1 to R^{10} and Y^2 is specified in the number of carbon atoms.

